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29.11.06

Reference 3171EP0W	Application No./Patent No. 04728959.0 - 2404 PCT/JP2004005829
Applicant/Proprietor Takeda Pharmaceutical Company Limited	

### COMMUNICATION

The European Patent Office herewith transmits the supplementary partial European search report under Rule 46(1) EPC relating to the above-mentioned European patent application.

Copies of the documents cited in the search report are enclosed.

The applicant's attention is drawn to the following

The Search Division informs the applicant that if the European search report is also to cover inventions other than the invention first mentioned in the claims, a further search fee must be paid for each of these inventions, within **one month** after notification of this communication.

If the application has been filed up to 30 June 1999, the search fee in force before 01 July 1999 (EUR 869,--) or the equivalent applicable on the date of payment is payable.

**This applies also to the search fees requested under Rule 46(1) EPC.**

See also OJ EPO 06/1999, 405.

Moreover, the Search Division considers that the present European patent application does not comply with the provisions of the European Patent Convention to such an extent that it is not possible to carry out a meaningful search into the state of the art on the basis of some of the claims; reference is made to sheet C, which is attached to the search report.

☒ Additional set(s) of copies of the documents cited in the European search report is (are) enclosed as well.

#### Note to users of the automatic debiting procedure:

Unless the EPO receives prior instructions to the contrary, the search fee(s) will be debited on the last day of the period for payment. For further details see the Arrangements for the automatic debiting procedure, Supplement 2 to OJ EPO 01/2005.



Registered letter  
EPO Form 1507.3 07.99



European Patent  
Office

**SUPPLEMENTARY  
PARTIAL EUROPEAN SEARCH REPORT**

Application Number

under Rule 46, paragraph 1 of the European Patent Convention EP 04 72 8959

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
P, Y	WO 03/080098 A2 (BAYER AG [DE]; GOLZ STEFAN [DE]; BRUEGGEMEIER ULF [DE]; GEERTS ANDREAS) 2 October 2003 (2003-10-02) * pages 83-97 *	1-4	INV. G01N33/50 G01N33/15 C12Q1/02 A61K39/395
Y	CHRISTOPHE T ET AL: "The synthetic peptide Trp-Lys-Tyr-Met-Val-Met-NH <sub>2</sub> specifically activates neutrophils through FPRL1/lipoxin A <sub>4</sub> receptors and is an agonist for the orphan monocyte-expressed chemoattractant receptor FPRL2" JOURNAL OF BIOLOGICAL CHEMISTRY, AMERICAN SOCIETY OF BIOCHEMICAL BIOLOGISTS, BIRMINGHAM,, US, vol. 276, no. 24, 15 June 2001 (2001-06-15), pages 21585-21593, XP002973365 ISSN: 0021-9258 * abstract * * page 21586, column 1 *	1-4	A61K45/00 A61K48/00 A61P1/04 A61P1/16 A61P3/10 A61P9/00 A61P11/00 C07K14/72 A61K38/17
			TECHNICAL FIELDS SEARCHED (IPC)
			G01N
<b>LACK OF UNITY OF INVENTION</b>			
The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:			
see sheet B			
The present partial European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims.			
Place of search		Date of completion of the search	Examiner
Munich		17 November 2006	Hohwy, Morten
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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EPO FORM 1503 03.02 (P04C23)



DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (IPC)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
T	HARADA M ET AL: "N-Formylated humanin activates both formyl peptide receptor-like 1 and 2" BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, ACADEMIC PRESS INC. ORLANDO, FL, US, vol. 324, no. 1, 5 November 2004 (2004-11-05), pages 255-261, XP004583794 ISSN: 0006-291X * page 256, column 1 * * abstract *	1-4	
Y	BETTEN A ET AL: "A proinflammatory peptide from Helicobacter pylori activates monocytes to induce lymphocyte dysfunction and apoptosis" JOURNAL OF CLINICAL INVESTIGATION, NEW YORK, NY, US, vol. 108, no. 8, October 2001 (2001-10), pages 1221-1228, XP002249986 ISSN: 0021-9738 * page 1221, column 1 * * abstract *	1-4	TECHNICAL FIELDS SEARCHED (IPC)
A	DURSTIN M ET AL: "Differential expression of members of the N-formylpeptide receptor gene cluster in human phagocytes" 30 May 1994 (1994-05-30), BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, ACADEMIC PRESS INC. ORLANDO, FL, US, PAGE(S) 174-179 , XP002973362 ISSN: 0006-291X * abstract *	1-4	



Claim(s) not searched:  
5,6

Reason for the limitation of the search:

Claims 5 and 6 cover a pharmaceutical defined as a compound that changes the binding property of any one of the ligand peptides SEQ ID NO:3-7 to the protein defined by SEQ ID NO:1. However, this does not define a compound since it is not clear what compounds fulfill this criteria. In fact, the applicant states on p.78 of the description, that "By using FPRL2, it can be confirmed whether or not various drugs exhibit their pharmacological effects mediated by FPRL2", which means that pharmaceuticals in the prior art may or may not fall in the category claimed by claims 5-6. Consequently, the definition used in these so-called reach-through claims is so unclear, that no meaningful search of claims 5-6 can be carried out.



The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-6, 14-17(partly)

A screening method using FPRL2 and the peptides defined by  
SEQ. ID. NO:3-7  
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2. claim: 7

A screening method using FPRL2 and measurement of  
intracellular cAMP levels.  
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3. claims: 8-10, 14-17(partly)

The protein, or polynucleotide coding for, FPRL2 as a  
pharmaceutical or diagnostic agent.  
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4. claims: 11-13, 14-17(partly)

The antibody, or complementary polynucleotide sequence,  
against FPRL2 as a pharmaceutical or diagnostic agent.  
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The application lacks a posteriori unity within the meaning of Article 82 EPC for the following reasons: The present application describes a method for screening a compound that affects the activity of the G-protein coupled receptor, Formyl Peptide Receptor Like-2, FPRL2 (SEQ. ID NO:1), using 5 peptides that are apparently new nanomolar inhibitors of FPRL2. Further, the application discloses a pharmaceutical, that acts via FPRL2, therapeutic use of FPRL2, therapeutic use of the polynucleotide encoding FPRL2, diagnostic use of the polynucleotide encoding FPRL2, therapeutic use of an antibody against FPRL2, diagnostic use of the antibody against FPRL2, etc. These inventions are not so linked as to form a single general inventive concept, because the linking element, the FPRL2 receptor (SEQ. ID NO:1) is not new (see eg. WO 02/068600). In addition, the pharmaceutical use of FPRL2 is also not novel (WO 03/080098).

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17-11-2006

Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
WO 03080098	A2	02-10-2003	AU 2003218716 A1	08-10-2003
			US 2006057577 A1	16-03-2006